

## CLAIMS

- 1 1. A computer, the computer to aid in managing a computer network, comprising:  
2  
3 a distributor that receives a message from an entity that detects an  
4 anomaly on a network device;  
5  
6 a filtering device, for use by the distributor, tests a value of an argument contained  
7 in the message using a filtering expression that is created at run time; and,  
8  
9 a transmitting device for transmitting the message if a result of the filtering  
10 expression is true.

- 1 2. The apparatus of claim 1 further comprising:  
2  
3 the distributor compiles each filtering device, and the filtering device is a filtering  
4 program, and the filtering program is programmed in a programming language that can  
5 be compiled.

- 1 3. The apparatus of claim 2 further comprising:  
2 the distributor dynamically loads the compiled filtering program before executing  
3 the filtering expression in the filtering program.

- 1 4. The apparatus of claim 2 further comprising:  
2 the filtering program includes a test implemented in a Boolean statement.

1 5. The apparatus as in claim 2 further comprising:  
2 the filtering program includes a test implemented in a SQL statement.

1 6. The apparatus of claim 2 further comprising:  
2 the filtering program includes a programming expression that performs queries on  
3 at least one individual message.

1 7. The apparatus of claim 2 further comprising:  
2 the filtering program includes a programming expression that performs queries on  
3 a group of messages.

1 8. A computer, the computer to aid in managing a distributed computer network,  
2 comprising:  
3  
4 a distributor that receives a message from a network device, the message  
5 containing a value of an argument, the distributor testing the value of the argument in  
6 accordance with a filtering expression to distribute the message if a result of the  
7 filtering expression is true; and  
8  
9 a filtering device that creates the filtering expression at run time.

1 9. A computer, the computer connected in a distributed computer network, comprising:  
2  
3 a distributor for receiving at least one message that indicates an anomaly on a  
4 network device;

5  
6 means for compiling a filtering program that is associated with the at least one  
7 message;

8  
9 a filtering device for use by the distributor tests a value of an argument contained  
10 in the at least one message, using a filtering program that is created at run time; and,

11  
12 means for distributing the message if a result of the filtering program is true.

1 10. A computer, the computer connected into a computer network, comprising:

2  
3 a distributor software application on said computer for receiving at least one  
4 message that indicates an anomaly on a network device;

5  
6 means for compiling a filtering program that is associated with the at least one  
7 message;

8  
9 a filtering device for use by the distributor to test a value of an argument  
10 contained in the message, the filtering program being created at run time; and,

11  
12 means for distributing the message if a result of the filtering program is true.

1 11. A computer, the computer connected into a computer network, comprising:

2 a distributor software application on said computer for receiving at least one  
3 message that indicates an anomaly on a network device;

4  
5 a compiler to compile a filtering program that is associated with the at least one

6 message;

7

8 a filtering device for use by the distributor to test a value of an argument  
9 contained in the message, wherein the filtering program is created at run time; and

10

11 a transmitting device to transmit the message if a result of the filtering program is  
12 true.

1 12. A method for operating a computer, the computer aiding in management of a  
2 computer network, comprising:

3 A) receiving a message that indicates an anomaly on a network device;

4 B) compiling a filtering program that is associated with the message;

5 C) filtering the message in accordance with the filtering program by testing an  
6 argument value in the message in accordance with a filtering expression of the filtering  
7 program, and the filtering expression is created at run time; and,

8 D) distributing the filtered message if a result of the filtering expression is true.

1 13. The method of claim 12 wherein the step of compiling further comprises:

2 writing and compiling the filtering program in a language similar to that of the  
3 distributor.

1 14. The method of claim 12 wherein the step of filtering further comprises:

2 loading the compiled filtering program; and,

3 executing the filtering expression.

1 15. The method of Claim 12 further comprising:

2       altering the filtering program dynamically during run time in response to the  
3 anomaly.

1 16. A method for operating a computer, comprising:

2  
3       receiving a message into a distributor, the distributor receiving state messages  
4 from producers and transmitting the state messages to the appropriate network consumer,  
5 the message indicating an anomaly on a network device;

6  
7       filtering the message by a filtering program that contains a filtering expression for  
8 testing a value of an argument contained in the message, and the filtering expression is  
9 created at run time; and

10  
11       transmitting the message through a transmitting device if a result of the filtering  
12 expression is true.

1 17. A method for operating a computer, the computer connected into a computer  
2 network, comprising:

3  
4       receiving a message into a distributor software application, said message  
5 indicating an anomaly on a network device;

6  
7       filtering the message by a filtering program that contains a filtering expression  
8 for testing a value of an argument contained in the message, and the filtering expression  
9 is created at run time; and

11 transmitting the message through a transmitting device if a result of the filtering  
12 expression is true.

1 18. A node for carrying out the method according to claim 12 or claim 16 or claim 17.

1 19. A computer network, comprising:

2 at least one computer, the computer connected into the network, as in claim 1 or  
3 claim 8 or claim 9 or claim 10 or claim 11.

1 20. A computer-readable media, comprising:

2 instructions written on the computer readable media, the instructions for  
3 executing on a computer for the practice of the method of claim 12 or claim 16 or claim  
4 17.

1 21. Electromagnetic signals travelling over a computer network, comprising:

2 the electromagnetic signals carrying instructions for executing on a computer for  
3 the practice of the method of claim 12 or claim 16 or claim 17.